

REMARKS

The preceding amendment is submitted in response to the Office Action of March 18, 2005 on the above-identified application. Its entry, and a reconsideration of the claims as amended, are respectfully requested.

Claims 1 through 4 are pending in the application. In the action, claims 1, 2 and 3 were rejected on the basis of the prior-art, while, it is noted with appreciation, claim 4 was objected to as depending from a rejected base claim, but indicated as being allowable if rewritten in independent form.

Turning to page 2 of the action, the Examiner has referred to 37 C.F.R. § 1.77(b), which identifies the various sections into which a specification of a patent application may be divided. This has been taken to be a suggestion that the customary section headings be added to the specification. This has been done in the preceding amendment.

Referring to the rejections made on the basis of the prior-art, claims 1 and 2 were rejected under 35 U.S.C. 103(a) as being unpatentable for obviousness over the teachings of U.S. Patent No. 5,815,606 to Baker et al. in view of those of International Publication No. WO 97/34253 (Oliveras et al./Philips). Claim 3 was rejected as being unpatentable for obviousness over Baker et al. in view of Oliveras et al./Philips and further in view of the teachings of European Publication No. 0 467 577 B1 (Kobayashi et al./Sony et al.).

In the preceding amendments, claims 1, 2 and 3, as well as claim 4, have been cancelled without disclaimer or prejudice, in favor of newly submitted claims 5, 6 and 7, which are based upon claims 1 and 2 of European Patent No. 1 190 371, which was granted on corresponding European Patent Application No. 00936883.8 on September 10, 2003.

Claims 5 and 6 are based on claim 1 of the European patent, and incorporate features concerning the use of a neural classifier as one of the binarization processes, wherein the neural classifier has a set of weights for neurons learned from a backpropagation method into synthesized images of mail items, and the neural classifier translates into a binary value a vector of data characterizing the environment of a current pixel in the digital image. These features are supported in the specification at page 4, lines 1 to 27.

The use of a feed-forward neural classifier learned by backpropagation as a binarization process enables the binarization of different spectra of mail items in the same automatic processing mail machine as recited on page 2, lines 20 to 31.

New claim 7, based upon claim 2 of the European patent, has essentially the same scope as cancelled claim 4.

Claims 5 and 6 are respectfully submitted to be patentable over the prior art cited by the Examiner. Baker et al. does not disclose the use of a neural classifier. Oliveras et al./Philips discloses a filtering method including several binarizations without using a neural classifier.

Kobayashi et al./Sony et al. discloses a neural network used for converting a video image element into a binary value by increasing by twice the number of pixels in the binary image. The neural network used is of the Hopfield type (see page 4, line 46). Such a type of neural network is not learned by back propagation and therefore is different from the neural classifier required by claim 5.

Accordingly, new claim 5, as well as new claims 6 and 7 which depend therefrom, is respectfully submitted to be patentable over the art cited by the Examiner. The allowance of claims 5, 6 and 7 at an early date is respectfully requested.

Respectfully submitted,

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